



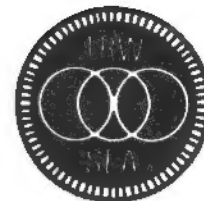
# CROSSTALK

## News Bulletin of the TRW Amateur Radio Club

MEMBER ARRL CLUB NO 1658 MEMBER LAARC

W6TRW REPEATER: 145.320/-6 (PL 2A)

UHF: 442.000 IN/447.000 OUT



### CALENDAR FOR FEBRUARY AND MARCH

Every	Friday	Club Breakfast-Bldg S cafeteria.	7:00 AM
Every	Wednesday	Emergency Communications Team Check in.	Noon
Feb 25	Saturday	TRW ARC Swapmeet NW corner Compton/Marine & Aviation.	8:00-11:00am
Feb 28	Tuesday	Club meeting Bldg E2 Room 1200.	Noon
Mar 07	Tuesday	Executive Board Meeting at Pizza Hut Rosecrans & Oceangate.	5:30pm
Mar 18	Saturday	DEADLINE FOR CROSSTALK ARTICLES	Noon

## NEW! 18 MHz

The FCC is opening the 18 MHz band for amateur operation. Stations with general, advanced and extra class operators may begin using the 18 MHz band as of 0001 UTC 31 January 1989, one minute after 7 pm EST Monday 30 January 1989. A1A emissions may be used in the whole band from 18.068 to 18.168 MHz. digital emission F1B for direct printing, telemetry, telecommand and computer communications is permitted below 18.110 MHz and analog emissions such as FAX, SSTV and phone may be used from 18.110 up. the normal power limit of 1500 watts output applies, but amateur operations must not cause harmful interference to U.S. government and foreign fixed service operations. The authorization is contained in a report and order in PR docket 88 467. under its terms and those of

## AMSAT NEWS

### TO ALL RADIO AMATEURS

#### MicroSat "Logo" Ideas Being Solicited For A New AMSAT-NA Patch

AMSAT-NA is soliciting ideas for the design of a "logo" for the four new MicroSats which will be launched this summer on a Ariane rocket. The new "logo" will be then turned into a beautiful patch which can be affixed to hats, windbreakers, etc. If your idea is picked, it is possible that it may also become part of the decal which will be affixed to the side of the Ariane rocket. It is being planned that the new patch will be ready by the Dayton Hamfest. Submit your ideas for the MicroSat "logo" to John Champa, K8OCL, AMSAT-NA Executive VP, 7800 Hartwell St., Dearborn, MI, 48126. The final choice will be made by the AMSAT-NA Board of

Directors. The deadline will be March 15, 1989. So submit your idea today and perhaps you will have a chance to watch it literally fly into space!

OSCAR satellite enthusiasts are reminded that the new AMSAT "Novice/Technician" Net commences this weekend on Sunday, February 12th, at 19:00 UTC on a frequency of 28.460 MHz. This weekly Net will have as its NCS Vinnie Banville, WB2YGA. This Net is being "geared" towards beginners and is intended to be tutorial in nature. If you know a novice or a technician class licensee who is interested in OSCAR satellites, please inform them about this Sunday afternoon Net. (EST)

# FROM THE PRESIDENT

By Rich Sauer, N6CIZ

It's time to renew your membership again and I hope that all of you who are reading this have done so already cause it could be your last delivered Crosstalk. We've been distributing our newsletter around quite a bit lately and you may pick up a copy at the swapmeet or Jun's but, what if you forget? Wouldn't you like to have the security of knowing that the Crosstalk will arrive right in your mailbox each and every month? Joining the TRW Amateur Radio Club is absolutely the best way to keep up with and get involved in club activities. In addition to receiving our fine newsletter each month, membership has other benefits. Did you know that the club has radios and test equipment to loan to its members? Need to borrow a 2 meter HT (or 450 or 220)? What about a Bird wattmeter or a deviation meter? Tune up for the W6TRW 2 meter or our W6TRW 447.0 repeater. If you're a full member, a complete station in Building 65 includes a Kenwood TS940 transceiver for the low bands, a packet radio setup, and a complete OSCAR station for your personal use. If you are an Associate Member you can get into the TRW amateur shack only if you are escorted by a TRW employee but, as an Associate Member you can operate our remote HF station with any touch tone phone. Only TRW amateur radio club members are allowed access. Our computer bulletin board, how-

ever, is open to everyone so lets keep in touch (TRW BBS 812-4970).

**You can operate our  
remote HF station  
with any touch tone  
phone**

Don't forget Club activities. Did you know that TRW ARC club members who work at TRW get a FREE space at the swapmeet and easy access to the Club meetings? Associate Members get a discount. Field Day, VHF contest mountaintopping, picnics, parties, Club breakfast every Friday, monthly meetings with interesting speakers hey, we're doing a lot! In short, being a TRW ARC Member is more than just getting the newsletter every month. I invite everyone to join by filling out the application at the back of the Crosstalk.

How do you like the new look of our newsletter? What's your feeling about a no-code ham license? What would you like to see the Club doing that it's not? Direct your ideas, opinions or suggestions to Crosstalk Editor Scott LoBue, N6AZY :TRW ARC, Box 1495, One Space Park, Redondo Beach CA. 90278. Look for the W6TRW repeater (and chatty Charlie) to return to the air by April; 73. Rich

## OPERATION FROM MIR:

Stations around the world have been reporting hearing and working U4MIR. According to Hans, ZS6AKV, stations in southern Africa worked the new MIR station as early as Thursday, Feb. 9. Pat, G3IOR, worked U4MIR on Friday the 10th. By Saturday, Feb. 11, many stations in eastern Canada and in Europe were reporting contacts, including Bill, VE3EFX, and his XYL VE3HIR. W2RS had one at 1938 UTC on Sunday, Feb. 12, and another the same day at 2113 UTC. VE3EFX reports that the new operator's name is Alexander. His English is quite poor and he does seem to be having some trouble with call signs. But he is trying, so please speak slowly and distinctly, sticking to standard ICAO phonetics. Most of these contacts, including that of W2RS, were made on 145.550 simplex. Alexander also seems to be using 145.650 as a secondary frequency; several simplex contacts were made there as well. So far at least, Alexander seems to be keeping the same general hours as did Musa, U2MIR, in that most contacts are being made at about 1900 UTC or later, in the period between the cosmonauts' dinner hour and lights-out. Mir's operations schedule is on Moscow time, which is three hours ahead of UTC. Pat, G3IOR, reports that a new crew will be going up in April, and is receiving Amateur Radio instruction on the ground. We look forward to more Amateur operation from the spacecraft as time goes on. No new QSL information has been received, so until further notice cards should probably still go via Boris Stepanov, UW3AX, P.O. Box 679, Moscow 107207, USSR.

Please continue to report information concerning MIR to AMSAT net control stations so that it may be passed on to others. 73, Ray, W2RS

# TRW ARC CLUB NEWS

Friday, March 17th is our St. Patrick's Day party. Look for a special flyer to come your way announcing the time and place. Also, remember to order your Club jackets. These are a real bargain for the price.

A committee has been formed to look into a TRW ARC- sponsored DX-pedition. Contact Paul Lukas, Dave Stockwell or Frank Cartier for more info.

Our current Treasurer, Al Key, WA6FLL, will no longer be able to support the Club as its Treasurer. We'll be holding a special election at the March club meeting. Anyone wishing to accept this job or nominate someone for this job should contact Rich Sauer, N6CIZ prior to the March meeting. In the interim, Chris Wachs, WA2KDL, has volunteered to be Acting Treasurer. All correspondence relating to finances should be sent to Chris. We'd like to thank Al for his contributions and assistance. The Club wishes him the best of luck and looks forward to his return.

At the next club meeting (Feb 28, E2/1200) our guest speaker will be Fred

Heyn who is ARRL director for the Southwestern division.

All hams interested in supporting the ARRL June VHF Contest are invited to attend the first kickoff meeting of the year with The Southern California VHF Society (Members and Visitors both welcome!) on Saturday, February 25th at Baxter's, 2620 Sepulveda Blvd. Manhattan Beach (West on Marine Ave. from the TRW Swap-meet) TIME: 11:45 Sharp! RSVP: Call Bill Dews, K6AWO before February 22 Work: (213) 813-5594 Home: (213) 376-1433 Plan to eat lunch. This is a restaurant that we are booking for a private meeting. Please repro information on what equipment you have, what you will need, what bands you plan to operate, etc. Information can then be exchanged with all members of the group. This is a PLAN-NING meeting so PLAN to attend!

W6TRW Repeater Update By Rich Sauer The radio that we will be using for the new repeater was delivered to the 2-way shop on Wednesday, Feb 15th by myself and Greg, N6RRY. They'll check it out, order crystals (channel elements (ok, ICOMS for you

GE types)) and begin the mod/testing procedures.

The following club badge orders are in progress: Nate W6UTE, Pache K2LCT, Seth W6LCP, Eldridge N6RVC, Cecil KC6L, Jack Bell, Goyena WQ6X, Andre KJ6PK, Mike KB1AC, Easley, and Burghard.

We are looking for Amateur radio operators to function as volunteer emergency communicators for the Los Angeles County Disaster Communications Service. Operators will check-in to the Hermosa Beach, Manhattan Beach, or Lennox Sheriff Station disaster communications net 2 to 3 times each month. You will receive specialized training once a year and put this to work for about 10 to 15 minutes during the check-ins. The equipment required is a 2 Meter Transceiver. You may call Bill Dews, K6AWO, at 376-1433 (evenings) for information. It would be appreciated if you would plan to attend an open, general information meeting at Baxters on Saturday, March 11th, at 9:00 am for 1 hour. Please let me know if you plan to attend so that I can make reservations.

## PROBE TO PHOBOS

This spring a Soviet space probe is scheduled to travel to Phobos, one of the two Martian moons. Originally, two craft had been sent on the mission, but one went out of control last fall after a wrong command by a Soviet ground controller. Plans call for 2 small landing vehicles to be left on Phobos; one

should send data directly to Earth for a year. The other, a mobile "hopper," will bound across the moon gathering information about the chemical makeup of Phobos' surface and relay that information to Earth via its mother spacecraft.

-*Science Digest* March, 1989 pg 43

## LAST CHANCE

## TO RENEW

## YOUR TRW ARC

## MEMBERSHIP

## ACT NOW !!

## EXECUTIVE BOARD MEETING

by DON W6SQF

The meeting was called to order at 5:30 PM by Rich, N6CIZ. Present were: Bill K6AWO, Rich N6CIZ, Jeff N9CZA, Al WA6FLL, Dave WA6ATK and Don W6SQF.

Rich described briefly what was happening with HamCon 89. TRW will hold the usual swapmeet with an extended hour. For some reason the Hamcon folks were under the impression that we would supply bus service between the hotel and the swapmeet. The board passed a resolution unanimously to inform them that the only transportation available would be the RTD bus (the 225 line runs down Aviation Blvd.)

Jeff Shields announced that the meeting room for Feb will again be E2/1200.

This room is not as spacious as R10 but is available.

Bill Dews reports our membership for 1989 has crossed 150. Keep those forms coming.

Bill Schrecengost mentioned that he has acquired 3 new rotators for field day. We may finally retire the Armstrong rotator we used last year. Paul Lucas N6DMV has been drafted as Bill's new chairman-in-training. Good luck Paul, give him all the support you can.

Steve, N6CRR has volunteered to fix the TNC, since has one like it and presumably understands the beast.

A motion to provide our surplus TS820, a keyer and a vertical antenna to the San Juan Capistrano branch of the club was made and carried. 73, Don R.

## HAM IT UP

at the

## TRW AMATEUR RADIO

## SWAPMEET

SATURDAY, MARCH 25th

## HOW NOCODE CAN HELP L.A. TRAFFIC

BY DON R, W6SQF

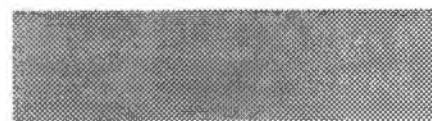
While stuck in the morning traffic on Pacific Coast Highway, I was listening to a No Code License discussion on the .38 Repeater. It occurred to me that the ideas expressed in that discussion could be applied to solve the LA traffic problems.

How about a new licensing structure for drivers. We could have a Novice class, which in addition to a driving and written test would require demonstration of handling a pony cart. This would allow a driver to use the city streets only, while protecting the freeways for only those mature and savvy among us who had higher grade licenses. Demonstration of the ability to handle a horse and buggy

might enable one to use the State Highways, and the ultimate of handling a Conestoga wagon would provide an advanced class of license which allowed Freeway driving. A side benefit of this plan would be enhanced emergency transportation. When "the big one" comes and your auto is disabled, lets say you are in front of Santa Anita. You can immediately requisition a steed, hitch it to a sulky and be a part of the emergency rescue team.

All of this may not do much for the local economy, but it would solve the traffic problem.

## FOR SALE



3/4: Butternut Antenna Rich Sauer  
N6CIZ (213) 813-5869

Butternut HF5B Butterfly Beam. Assembled. Works Fine. Best Offer. Bill Shanney, KJ6GR WORK-(213) 536-8266- HOME-(213) 542-9899-

# NO CODE LICENSE?

An Open Letter to "The Committee to Fight No-Code"

Gentlemen:

Since I am not a director of AMSAT, I did not vote on its proposal for a code-free UHF license. However, I am an officer of AMSAT and was present at the meeting when the matter was considered. In the belief that you may have been misinformed about what we are and are not proposing, please allow me to help separate fact from fiction. What AMSAT is proposing is a new class of Amateur license which would allow operation only in the bands above 220 MHz. There would be no Morse Code requirement, but there would be a written test consisting of the present Technician Class exam plus a new element covering Amateur satellite, digital and microwave techniques. The hope is that Amateur Radio can thus attract technically qualified newcomers to increase our occupancy of portions of the spectrum which are currently under-utilized and thus in danger of being reallocated to other services as in the recent 220-222 MHz case. AMSAT satellites have been used by foreign no-code Amateurs since AMSAT-Oscar 6 in 1972. With the single exception of Japan, we have found no difference in operating ability or ethics between satellite users who have passed code

tests and those who have not, other than the use of CW. Listen to AMSAT-Oscar 10 or AMSAT-Oscar 13 and judge for yourself. Our proposed examination would require more knowledge than the tests which most of these people took. Japan is a unique case. A Fourth Class license may be obtained through the JARL by anyone, without a code test, who passes a simple Novice-type written exam. Most of these licensees use 2-meter FM. As one might expect, problems of undisciplined operation are very common. That is one reason why AMSAT is NOT supporting a Japanese-type license in the United States.

Once again, let me say that AMSAT's proposal would not allow 2-meter privileges to no-code licensees. The

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**What AMSAT is proposing is a new class of license which would allow operation only in the bands above 220 MHz.**

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written test which we are suggesting would be more difficult than that required of VHF/UHF licensees in most European countries.

On a more personal note, I simply do not understand, and do not accept, any inference that AMSAT as an organization, or I as an officer of AMSAT, might have a "conflict of interest" in this matter. AMSAT is a not-for-profit organization all of whose income goes to build and operate satellites, develop technology and inform users about them, entirely for the benefit of Amateur Radio. Whether or not you or any Amateurs choose to make use of these services is up to you; I hope you do and would be happy to see you as active participants in AMSAT. However, please do not make your decisions for reasons which are not factually correct. Incidentally, since its founding 20 years ago AMSAT has fully supported the ARRL. The AMSAT Board, at its recent meeting, unanimously reiterated that position and stated specifically that AMSAT does not wish to be associated with NARA.

I hope that this letter has been helpful to you in developing your views on this important matter affecting all of us as dedicated Amateurs.

73, Ray Soifer, W2RS



# DOES ANTIMATTER MATTER ?

It costs more than \$10 million per milligram, yet it may one day be the source of fuel that will make four hour trips to the moon possible.

The substance is antimatter, the mirror image of normal matter. Whereas protons are positively charged, antiprotons are negative. Electrons are negative, while antielectrons (usually called positrons) are positive. When

matter meets antimatter, both are annihilated in a flash of energy according to Einstein's famous equation  $E = mc^2$ . Since the discovery of antimatter in 1932, physicists have used tiny amounts of it in particle accelerators, but discussion of antimatter rocket fuel has been limited to Star Trek conventions.

Now, colonel Ross Nunn, director of the Air Force Astronautics Laboratory, says: "The 'giggle factor' (about antimatter) is over. Antimatter is real, and we know how to make it and keep it. It has promise." although still decades away, antimatter engines could open up the solar system to human travel, shortening interplanetary voyages by years.

## Q & A

*We would like to hear from you! This column is for ideas, suggestions, criticisms, questions, corrections, and answers. Mail your correspondence to: Scott LoBue, One Space Park 75/1247, Redondo Beach, CA 90278*  
**W1AW GONE RELIGIOUS?**

I've been tuning in the W1AW code practice transmissions for the last few days, and I've noticed that they've switched from using ARRL-related text to using passages from the Bible. I'm just wondering whether the ARRL should be involved in broadcasting religious propaganda. The code practice is really useful, but... Well, what do you think?

**10 MHz PACKET USE?**

Is packet allowable on the 10 MHz Ham band? If so, what frequencies? QST shows that CW and RTTY are allowed on 10.100 to 10.150 MHz. Is Packet the same thing as RTTY?  
AEA PK-232

Concerning an AEA PK-232, can the software support a Serial Com3 on the RS-232 Port for a IBM PC AT Clone?  
**TO THE EDITOR**

"Let me first say that the new look to the CROSSTALK is terrific. The use of Ventura Publisher has given you capabilities I only dreamed of when I was editor. There are a few things that I feel compelled to point out to you so that you can improve the newsletter even further...

...Don't let anybody give you any guff - do it your way. Nobody realizes the amount of work the newsletter is, but I do, and I really appreciate the the job that you are doing!! 73 John Keller N6JLS Former CROSSTALK editor." Have you considered inserting a ham related cartoon or club personnel photos from time to time?

Bill Schrecengost KE6LB

*Yes, I would like to collect photos of club personnel, club events, Ham related car-*

*toons etc. Anyone who would has some of this material please send it to me. Also, I could use some help locating a digitizer which I could use to integrate these images. Any information regarding this capability is welcome. Scott.*



**SEND US YOUR PHOTOS & CARTOONS FOR THE CROSSTALK**